

IPA

International Journal of Psychology
Vol. 13, No. 1, Winter & Spring 2019
PP. 78-106

Iranian Psychological
Association

Designing and Testing a Model of some Antecedents of Subjective Career Success

Reza Mehdipour, MA student

Department of Industrial &
Organizational Psychology
Shahid Chamran University of
Ahvaz

Nasrin Arshadi, PhD*

Department of Industrial &
Organizational Psychology
Shahid Chamran University of Ahvaz
narshadi@scu.ac.ir

Abdolkazem Neisi, PhD

Department of Industrial & Organizational Psychology
Shahid Chamran University of Ahvaz

Received: 18/ 6/ 2018 Revised: 15/ 8/ 2018 Accepted: 23/ 8/ 2018
Doi: 10.24200/ijpb.2018.136291.1031

The purpose of this study was designing and testing a model of some antecedents of subjective career success. The participants of this study consisted of 230 employees of Khuzestan Water and Power Organization, who were selected by stratified random sampling method. The instruments used in the study were Work Climate Questionnaire, Perceived Competence Scale, Basic Need Satisfaction at Work Scale, Work Extrinsic and Intrinsic Motivation Scale, Career Satisfaction Scale, Perceived P-V Fit Scale & Career commitment Scale. Structural equation modeling (SEM) through AMOS-21 was used for data analysis. Bootstrapping procedure also used to determine the significance of the indirect effects. The results showed that the proposed model fitted the data properly. Findings showed that work autonomy support and work competency support had significant direct effects on need satisfaction, self-determined motivation, and career success (career commitment, career satisfaction, and perceived p-v fit). Results also supported the meditating role of need satisfaction and self-determined motivation in these relationships. Based on our findings, SDT is a useful framework for predicting subjective career success in the form of career satisfaction, career commitment, and perceived p-v fit.

Keywords: subjective career success, self-determined motivation, need satisfaction, work autonomy support, work competency support

Career is a pattern of work-related experiences that continues throughout one's life. Career is a collection of personal learning and experiences related to work along the way of life. Career success is a set of positive and psychological consequences that derive from individual work experience (Seibert, Kraimer & Crant, 2001). A successful career implies achievement of the specific desired of an individual in his or her career (Dolan, Bejarano & Tzafrir, 2011).

Individual can identify their career success by comparing what has already been achieved with desired goals. Career success is divided into objective career success and subjective career success. Objective career success is defined by reference to societal or cultural factors and includes lateral (increased job security, longer vacations) or hierarchical (promotion, different job title) factors (Karavardar, 2014; Rasdi, 2011). Subjective career success is defined as individuals perceptual evaluations of, and affective reactions to, their careers according to subjective criteria such as age, functional stage, career aspirations, and opinions of others, as well references to personal standards and perceived among individuals for life satisfaction in general, and the balance between career and family life (Kong, Cheung & Song, 2012; Colakoglu, 2011).

The objective career success is measured by the consequences given to a person from an outside person. There is no interpretation here, but only a comparison of the levels of external achievements. Subjective career success depends only on what remains in the individual's mind, even if those feelings and perceptions arise from external facts such as rights or promotions (Deris, Pepermans & Carlir, 2008).

Researchers report that an increasingly large percentage of employees define their career success in terms of subjective

indicators rather than objective ones (Littler, Wiesner & Dunford, 2003; Sturges, 2002). Chen (2011) mentioned that subjective career success consist of job and career satisfaction. Ng & Feldman (2014) concluded that job dissatisfaction, Low organizational commitment, Low occupational commitment, Low work centrality, Low job motivation, Low job involvement, and Low work engagement are associated with lower subjective career success.

Feelings of subjective career success are important to the well-being of individual, but they have serious for organizations as well. For example, employees with positive career beliefs are better able to maintain work-life balance (Sturges, 2002) and are more likely to remain with their employers and persist when confronted with vocational challenges (Armstrong-Stassen & Ursel, 2009; Donohue, 2007; Eddleston, 2009; Nauta, Van Vianen, Van Der Heijden, Van Dam & Willemsen, 2009).

Conversely, workers with negative career attitudes are more likely to withdraw from jobs and even change vocations (e.g., Simon, Muller & Hasselhorn, 2010). Therefore, recognizing the experiences that will create a positive attitude and career success will be important both for individuals and for the organizations that hires these people. Career success is a topic that affects not only individuals but also organizations, because individual employee success eventually brings organizational success (Judge, Higgins, Thoresen & Barrick, 1999). Much recent has focused on describing the antecedents of subjective career success, including personality traits (Judge et al., 1999; Ng et al., 2005). And employees' demographic characteristics (i.e., job tenure, education, and work experience; Ng et al., 2005).

Self-determination theory (SDT) proposes that certain job characteristic that satisfy employees' fundamental psychological

needs will generate self-determined motivation for work. This contextual motivation for work, in turn, encourages people to persist with their work behavior ([Vallerand, 1997](#)). SDT has implications for subjective career success: When people experience strong work motivation, they should feel ownership over their careers, choose to remain on their career track, and feel that they are making successful career progress. This proposition aligns with recent developments in career theory that emphasize the importance of self-directed career orientations ([Sullivan & Baruch, 2009](#)).

In this study we focus on specific job characteristics that are drawn from SDT: Autonomy support and competence support. Autonomy support refers to work experiences that bolster employees' feelings of choice and agency over their jobs. Competence support refers to job experiences that allow employees to feel capable when working ([Deci & Ryan, 2012](#)). These job characteristics will be positively associated with need satisfaction, self-determined motivation, and, ultimately, subjective career success ([Judge, Cable, Boudreau & Bretz, 1995](#); [Seibert, Crant & Kraimer, 1999](#); [Seibert, Kraimer & Crant, 2001](#)). [Fu \(2010\)](#) defined career satisfaction as the level of overall happiness experienced through one's choice of career. Subjective career success is typically defined in terms of career satisfaction, which involves positive attitudes that a person holds about the progress and future trajectory of his or her career ([Greenhaus, Parasuraman & Wormley, 1990](#)). Other variable include career commitment, which involves an attachment to a vocation or profession and desire to continue practicing it ([Blau, 1985](#)), and perceived person-vocation (P-V) fit, which involves beliefs that one's interests and abilities are match to the requirements of a vocation ([Vogel & Feldman, 2009](#)).

Autonomy support and competence support will have an important impact on need satisfaction. According to cognitive evaluation theory (CET), a person who experiences the feeling of ability and competence in a job will be satisfied with her or his job (Deci & Ryan, 2012). Additionally, need satisfaction can be an intermediary between job characteristics and self-determined motives. When people fulfill their basic needs, they experience self-identified motivation for work behaviors (Deci & Ryan, 2012). The self-determined motives subsequently have impact on the career dimensions. These relationships should be positive, intuitively pleased people derive from independent and committed behaviors that are likely to fulfill their needs and report on proportionality and commitment when they are motivated by self-regulation (Deci & Ryan, 2000; Meyer & Maltin, 2010; Greguras & Diefendorff, 2009; Meyer & Gagne, 2008).

Autonomy support and competence support have direct effects on the psychological perception of satisfied needs (Deci & Ryan, 2012), need satisfaction, in turn subsequently promotes self-determined motivation (Vallerand, 1997). Thus, job contexts that enhance feelings of autonomy and competence should be associated with the perception of need satisfaction, and need satisfaction should mediate the relationships between the job context and self-determined motivation. Critically, need satisfaction and self-determined motivation will be stymied if one support or the other is absent. For example, people may feel confident, but when given an external reward or punishment that reduces autonomy support, self-determined motivation will be undermined (Deci & Ryan, 2000).

Overview of the SDT

SDT argues that an autonomous act is defined as regulation by the self, the self being a central process that regulates behavior and experience. It is an organismic theory that accepts that human have a natural propensity to grow and assimilate aspects of their environment. Behavior is essentially the product of the interaction between the organism and the environment. SDT is a motivational theory that focuses on the regulatory processes by which individuals pursue goals in order to satisfy their innate psychological needs (Deci & Ryan, 2000, 2012; Ryan & Deci, 2000). SDT is considered a meta-theory of motivation because its propositions were developed over the last 40 years through several narrower that reside within SDT (Deci & Ryan, 2012). At its most basic level, SDT proposes that people have fundamental needs for autonomy, competence and relatedness and that they experience self-determined motivation for activities that satisfy those needs. In this study, we focus on one sub-theory within SDT, cognitive evaluation theory (CET), which is primarily concerned with needs for autonomy and competence. We chose CET because needs for autonomy and competence can be satisfied in any job. In contrast, the third need introduced in later sub-theories, relatedness, may not be as readily addressed in jobs that are performed individually.

CET identifies the situational conditions that satisfy people's fundamental needs for autonomy and competence (Ryan & Deci, 2000). Autonomy describes the need to have personal agency and to act in a way that is authentic and agrees with one's sense of self. Competence refers to the need to feel capable of being able to achieve specific outcomes and gain mastery over a performance domain. CET posits that people will experience self-

determined motivation in situation that promotes the satisfaction of autonomy and competence.

Modern job design is broadly concerned with way that jobs are structured and experience by employees (Nahrgang, Morgeson & Hofmann, 2011), moving beyond a specific focus on tasks and responsibilities that characterized early job design scholarship (Grant et al., 2010; Hackman & Oldham, 1976). Contemporary approaches recognize that jobs can be designed in ways that promote a bevy of desirable outcomes for workers and organizations, including learning, well-being, and work-family balance (Parker, 2014). Motivation theories, including SDT, also play a prominent role in this literature. Job design research based on SDT tends to emphasize the benefits of providing employees with autonomous choice (e.g., Baard, Deci & Ryan, 2004; Deci, Ryan, Gagne, Leone, Usunov & Kornazheva, 2001; Fernet, Austin & Vallerand, 2012; Sheldon, Turban, Brown, Barrick & Judge, 2003) and the effects of self-determined motivation on job outcomes such as job satisfaction, burnout, organizational identification, and turnover intention (Gillet, Gagne, Sauvagere & Fouquereau, 2013; Lam & Gurland, 2008; Vansteenkiste & Ryan, 2013). In aggregate, structuring jobs to fulfill fundamental needs leads to many positive job outcomes for both employees and organizations.

Although career theory has developed separately from job design theory, contemporary career theory invokes similar ideas from SDT. In response to environmental challenges (e.g., globalization, advances in technology) and personal factors (e.g., an emphasis on work-life balance, dual career families), many employees are no longer following the traditional, linear career path. Rather, employees are striving to pursue career focuses on several career orientations that people adopt to be successful in

response to these changes (Sullivan & Baruch, 2009). Protean career orientation, for example, refers to career development that is self-directed and driven by personal values. Protean careerists do not define success in the traditional way (i.e., status) but instead derive it from personal goal achievement, pride, and psychological success (McArdle, Waters, Briscoe & Hall, 2007; Hall, 1996). A related stream of career theory focuses on boundaryless career orientation, which emphasizes both psychological and physical mobility that defies the traditional, linear career trajectory. The behaviors of boundaryless careerists are self-determined (McArdle et al., 2007).

To summarize, we chose to explain the effects of job design on subjective career success with SDT in this study because concepts from SDT are deeply entrenched in both the job design and career theory literatures. Research situated in job design theory demonstrates that need-fulfilling job characteristics yield powerful, self-determined motivation. Similarly, research situated in career theory shows that people who adopt orientations that capitalize on self-determined motivation to guide their own career development, tend to experience better subjective outcomes.

The Present Study

We first hypothesized that autonomy-supportive and competence-supportive job characteristics positively affect need satisfaction at work. According to CET, jobs that promote feelings of agency and capability will satisfy employees' fundamental needs for autonomy and competence (Deci & Ryan, 2012). CET further posits that need satisfaction will mediate the relationships between job characteristics and self-determined motivation for work. Lastly, SDT posits that the effects of need

satisfaction on career attitudes should occur via self-determined motivation. As noted previously, people experience self-determined motivation for work behaviors when work fulfills their fundamental needs (Deci & Ryan, 2012). Self-determined motivation should subsequently have positive effects on career attitudes (i.e., career satisfaction, career commitment, and P-V fit). These relationships should be positive because people derive satisfaction from autonomously performed behaviors (Deci & Ryan, 2000), are likely to become committed to entities that fulfill their needs (Meyer & Maltin, 2010), and report feelings of fit and engagement when autonomously motivated (Greguras & Diefendorff, 2009; Meyer & Gagne, 2008).

The purpose of the current study is to expand on prior research by examining these relationships. The objective of this study is to demonstrate how job design (i.e., work autonomy and work competence support) is predictive of subjective career success (i.e., career satisfaction, career commitment, and perceived P-V fit) via need satisfaction and self-determined motivation (see Figure 1).

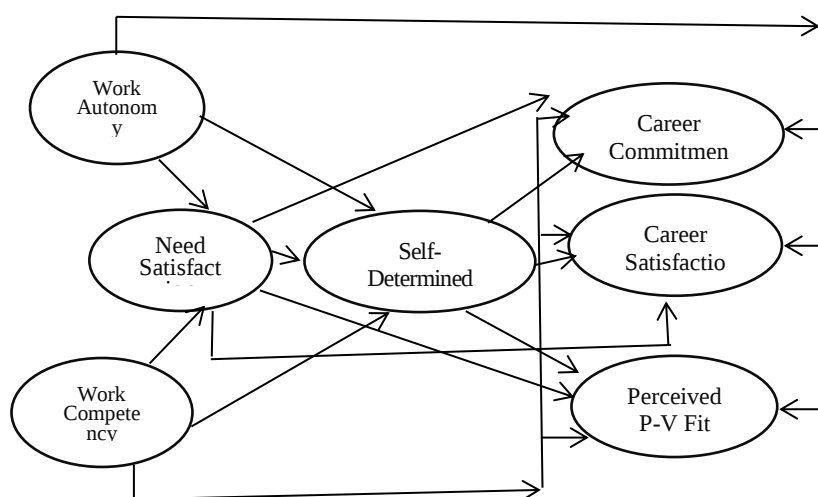


Figure 1. The Proposed Model of the Current Research

Method

Participants and Procedure

The statistical population of this research included all employees of Khuzestan water and power organization. For using structural equation modeling (SEM), [Kline \(2011\)](#) stated that the sample size ratio for each estimated parameter is at least 5 and at the most 20. According to the number of parameters in the proposed model, the participants consisted of 260 employees of the statistical population who were selected by stratified random sampling method. Anonymous questionnaires were distributed and altogether, 230 questionnaires were returned, yielding a response rate of 88%. Of the employees in the final sample, 77.3% were men. The average age was 41.09 years ($SD=7.87$), and the average tenure was 15.5 years ($SD=7.33$).

Instrument

Work Climate Questionnaire

We measured autonomy-supportive work conditions with the 6-item Work Climate Questionnaire (WCQ; [Baard et al., 2004](#); $\alpha=.94$). The WCQ evaluates perceptions of the extent to which managers in the workplace promote autonomy; a sample item read, "I feel that my manager provides me choices and options." Responses were made on a 7-point Likert-type scale from 1 (strongly disagree) to 7 (strongly agree). In the present study Cronbach's alpha was .90. In order to determine the validity of this questionnaire, a confirmatory factor analysis (CFA) was conducted. The results showed that all items (except items 1 & 3, which had factor loadings less than .3) had good factor loadings; i.e., all items loaded significantly on related factors. This provided evidence for the construct validity of this questionnaire.

Perceived Competence Scale

Competence support was measured with the 4-item ($\alpha=.92$) Perceived Competence Scale (PCS; Williams & Deci, 1996). Because the PCS items are intended to be domain specific, we followed past practice to modify the target of the questions to pertain to work (cf. Williams, Freedman, & Deci, 1998, who modified the questions to concern perceived competence at managing diabetes). A sample item reads, "I am capable of meeting my bosses' expectations of me at work"; responses were on a 7-point scale where 1 = not at all true and 7 = very true. Different forms of the PCS have been shown to be predictive of learning outcomes (Williams & Deci, 1996) and behavioral outcomes (Williams et al., 1998). In the present study Cronbach's alpha was .83. In order to determine the validity of this scale, a confirmatory factor analysis (CFA) was conducted. The results showed that all items had good factor loadings; i.e., all items loaded significantly on related factors. This provided evidence for the construct validity of this scale.

Basic Need Satisfaction at Work Scale

We used the Basic Need Satisfaction at Work Scale (Deci et al., 2001) to measure satisfaction of fundamental needs. We used only the 13 items from this scale pertaining to satisfied autonomy and competence needs ($\alpha=.88$). Sample items read, "I feel like I can pretty much be myself at work "(autonomy fulfillment). Responses were made on a 7-point scale where 1 = not at all true and 7 = very true. In the present study, Cronbach's alpha was .73. In order to determine the validity of this scale, a confirmatory factor analysis (CFA) was conducted. The results showed that all items (except items 4 & 7, which had factor loadings less than .3) had good factor loadings; i.e., all items loaded significantly on

related factors. This provided evidence for the construct validity of this scale.

Work Extrinsic and Intrinsic Motivation Scale

Work motivation described SDT was measured with the 18-item Work Extrinsic and Intrinsic Motivation Scale (WEIMS; Tremblay, Blanchard, Taylor, Pelletier & Villeneuve, 2009). The WEIMS was developed by translating the short version of the Blais Work Motivation Inventory (Blais, Lachance, Vallerand, Briere & Riddle, 1993), a validated French language instrument, to English and making slight adjustments to some items for semantic clarity. The WEIMS is a validated measure of all six work motivations described by organismic integration theory: intrinsic ($\alpha=.92$), identified ($\alpha=.84$), integrated ($\alpha=.88$), introjected ($\alpha=.84$), external ($\alpha=.70$), and amotivated ($\alpha=.79$). Each motivation type is measured with 3 items presented in a randomized order. Participants indicated the extent to which each item corresponds with the reasons why they work; sample items, "For the income it provides me" (external), "For the satisfaction I experience from taking on interesting challenges" (intrinsic), and "Because I want to succeed at this job, if not I would be very ashamed of myself" (introjected). Responses were made on a 7-point scale where 1=does not correspond at all and 7=corresponds exactly, such that higher scores indicate greater endorsement of a particular type of motivation.

Following established practice in the SDT literature (e.g., Rayan & Connell, 1989), Tremblay et al., (2009) converted the motivation scale scores into an overall self-determination index (SDI), where $SDI = (3 \times \text{intrinsic}) + (2 \times \text{integrated}) + (1 \times \text{identified}) + (-1 \times \text{introjected}) + (-2 \times \text{external}) + (-3 \times \text{amotivation})$. We use the SDI in the analyses that follow to give

an overall evaluation of self-determination; positive scores indicate relatively self-determined motivation, and negative scores indicate relatively non-self-determined motivation. Possible scores range from -36 to +36. In the present study, Cronbach's alpha was .87. In order to determine the validity of this scale, a confirmatory factor analysis (CFA) was conducted. The results showed that all items (except items 6, 8 & 15 which had factor loadings less than .3) had good factor loadings; i.e., all items loaded significantly on related factors. This provided evidence for the construct validity of this scale.

Career Satisfaction Scale

Career satisfaction was measured with [Greenhaus et al. \(1990\)](#) 5-item measure ($\alpha=.96$). Sample items read, "I am satisfied with the success I have achieved in my career" and "I am satisfied with the progress I have achieved in my career goals." Responses were made on a 7-point scale where 1 = strongly disagree and 7= strongly agree. This measure is correlated with job attitudes as job fit perceptions and job turnover intentions (Dahling & Thompson, 2013). In the present study, Cronbach's alpha was .87. In order to determine the validity of this scale, a confirmatory factor analysis (CFA) was conducted. The results showed that all items (except item 1 which had factor loadings less than .3) had good factor loadings; i.e., all items loaded significantly on related factors. This provided evidence for the construct validity of this scale.

Perceived P-V Fit Scale

Perceived P-V fit was measured using the 3-item measure ($\alpha=.81$) developed by [Vogel and Feldman \(2009\)](#). A sample items reads, "There is a good fit between my personal interests and the kind of work I perform in my occupation." Responses were made on

a 7-point scale where 1 = strongly disagree and 7= strongly agree. In the present study Cronbach's alpha was .70.

Career commitment Scale

Career commitment was measured with [Blau's \(1985\)](#) 7-item measured ($\alpha=.93$). A sample item reads, "If I could go into a different profession which paid the same, I would probably take it" (reverse-scored). Responses were on a 7-point scale where 1 = strongly disagree and 7= strongly agree. In the present study Cronbach's alpha was .76. In order to determine the validity of this scale, a confirmatory factor analysis (CFA) was conducted. The results showed that all items (except item 1 which had factor loadings less than .3) had good factor loadings; i.e., all items loaded significantly on related factors. This provided evidence for the construct validity of this scale.

Results

Descriptive Statistics

To start with all proposed relationships were tested simultaneously; first a correlation analysis was conducted (Pearson correlation) among all the variables included in this study. The correlations among variables, means, and standard deviations are reported in Table 1.

Table 1
Descriptive Statistics and Inter-Correlations for Research Variables

Variable	M	SD	1	2	3	4	5	6	7
1 Autonomy support	20.71	5.10	-						
2 Competency support	24.65	2.90	.37**	-					
3 Need Satisfaction	30.24	5.80	.28**	.39**	-				
4 Self-determined motivation	45.40	10.90	.56**	.50**	.38**	-			
5 Career commitment	21.09	4.58	.63**	.36*	.36**	.34**	-		
6 Career Satisfaction	22.73	4.48	.41**	.36**	.40**	.44**	.29**	-	
7 P.V fit	14.45	3.87	.46**	.31**	.43**	.48**	.42**	.32**	-

Structural equation modeling results suggested that the hypothesized model fit the data adequately, $\chi^2=4.71$; $df=3$; $p>.05$; $\chi^2/df=1.57$; GFI=.99; AGFI=.94; CFI=.99; IFI=.99; TLI=.97; NFI=.99; RMSEA=.05.

The standardized regression weights for the paths are shown in Figure 2.

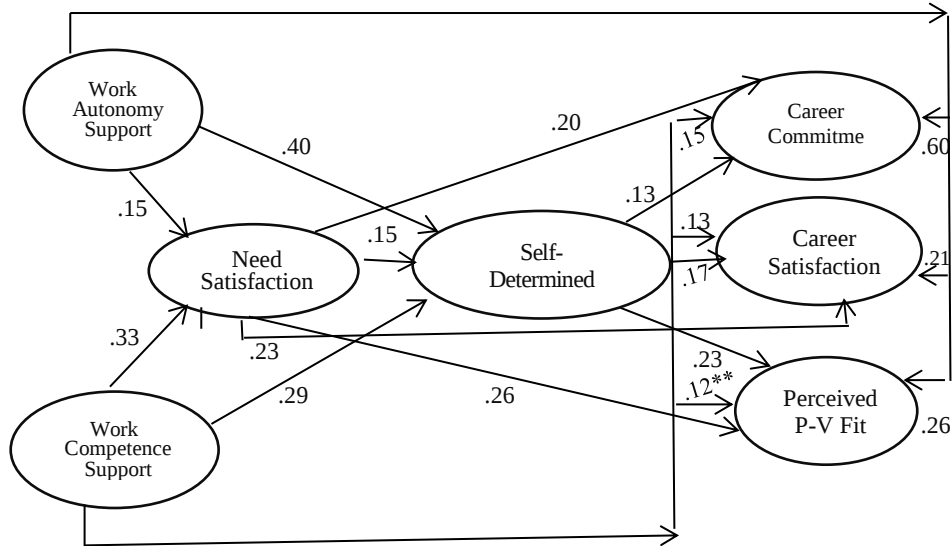


Figure 2. Structural Model with Standardized Path Coefficients (All Paths are statistically significant, $p < .01$)

As shown in Figure 2, all paths in this model were statistically significant ($p < .01$). Because of the proposed mediation effects, bootstrapping procedure was used to determine the significance of these effects. Bootstrapping procedure (using 1000 re-sampling) was used to determine the 95% bias-corrected confidence intervals around these effects. A confidence interval that did not span zero indicated a statistically significant effect. Table 2 indicates the results for bootstrapping analysis.

Table 2
Results for Bootstrapping Analysis

	Data	Boot	Bias	SE	95% Confidence interval
WAS → NS → SDM	.1506	.1519	.0012	.0568	.0594 - .2834
WAS → SDM → CC	.0077	.0078	.0001	.0476	.0972 - .2937
WAS → SDM → CS	.1504	.1509	.0005	.0640	.0056 - .2652
WAS → SDM → PPVF	.1384	.1406	.0022	.0462	.0394 - .2268
WCS → NS → SDM	.3306	.3463	.0158	.1346	.1092 - .6309
WCS → SDM → CC	.1750	.1772	.0021	.0624	.0642 - .3099
WCS → SDM → CS	.2713	.2757	.0044	.0787	.1415 - .4506
WCS → SDM → PPVF	.2941	.2993	.0052	.0627	.1735 - .4220

As shown in Table 2 the eight confidence intervals, did not span zero that indicates statistically significant mediation effects.

Discussion

The aim of the present study was designing and testing a model of some antecedents of subjective career success. The relationships in this model, which had received support from previous studies, were examined with data from employees in an industrial organization in Ahvaz, Iran. Promoting subjective career success has important benefits for employees, organizations, and professions, but researchers have neglected the ways that job design can translate into broader career outcomes (Hall & Las Heras, 2010). The present study tested how SDT, and especially the sub-theory of CET, explains this process. Our results supported all paths in the proposed model. Findings showed that autonomy support and competence support had direct effects on need satisfaction, self-determined work

motivation, and career success (career commitment, career satisfaction, and perceived p-v fit). Also, the effects of autonomy support and competence support on self-determined work motivation were fully mediated by need satisfaction. Self-determined work motivation also mediating the relationship between autonomy support and competence support with career success (career commitment, career satisfaction, and perceived p-v fit).

These finding help to confirm that the literature regarding job design and career development are closely related. Pervious research has focused predominately on personality traits and relationship-based variables, such as supervisor support, as antecedents of subjective career success (Ng et al., 2005). Our study expands the network around career success to include job characteristics which organizations can control them.

Our results also contribute to the literature regarding the importance of SDT in the workplace (Gagne & Deci, 2005; Sheldon et al., 2003). Although some authors have criticized the relevance of SDT (Fay & Frese, 2000; Latham, 2013), our results demonstrate that autonomy and competence supports contribute to self-determined motivation and valuable career-related outcomes. More generally, our findings also illustrate the importance of considering how broader theories of human motivation can shape specific vocational processes and outcomes of interest to career counselors as Dahling & Librizzi (2015) observed.

The proposed model also showed a strong test of the propositions of CET and reinforces the validity of this theory. As Latham (2013) observed, many studies have not explicitly measured the mediating states theorized to operate in SDT, especially need satisfaction.

Promoting subjective career success has important benefits for employees, organizations, and professions, but researchers have neglected the ways that job design can translate into broader career outcomes (Hall & Las Heras, 2010). The present study tested how SDT, and especially the CET, explains this process. Our results supported that autonomy support and competence support had direct effects on the satisfaction of needs.

The results also suggest that career counselors should carefully assess and consider the work conditions reported by clients. Many occupations, such as nursing, struggle with retaining people in the profession due to occupational stressors (Simon et al., 2010). However, according to SDT and the results of our study, any type of work may be structured in ways that fulfill innate psychological needs and promote high levels of subjective career success. For example, giving employees some personal agency in their everyday tasks may help to promote a feeling of work autonomy (e.g., Fernet et al., 2012). Providing competence-enhancing feedback, as well as assigning challenging tasks, may similarly allow employees to feel confident that they can successfully complete their work (Deci et al., 2001). These efforts may yield self-determined job motivation and better employee attitude.

Limitations and Future Research

It is important to highlight some limitations of the present study which can guide future research. First, SDT includes many other sub-theories that we did not examine in this study. We excluded one sub-theory, causality orientation theory (e.g., Baard et al., 2004; Lam & Gurland, 2008), focuses on individual differences in terms of how people generally construe their motivations as autonomous, controlled, or impersonal. Future

research could extend our model by examining causality orientation as additional predictors or moderators of need satisfaction and motivation. Second, given the cross-sectional design of this study, causal relationships among the variables cannot be established. Longitudinal studies should be employed to test the hypotheses. Longitudinal research clarifies cause and effect relationships. Third, the use of self-report measures may have inherent limitations (e.g., inability to recall, social desirability). A combination of self-report questionnaires and objective assessments would be ideal. Finally, because the participants were employees of Khuzestan Water and Power Organization, care should be taken in generalizing and extending the findings to other organizations' employees.

Practical Implications

The inclusion of the proposed model in this research is a main contribution of this research. This provides a more accurate picture of the relationships in a specific setting and a specific culture. Even if clients do not report work conditions that satisfy innate needs, career counselors can work with clients to encourage independent job crafting that proactively fulfills their own needs (Berg, Wrezensniewski, & Dutton, 2010). Job crafting refers to self-initiated, rather than organization-initiated, actions to improve and enrich jobs to attain personal, work-related goals (Wrzesniewski & Dutton, 2001). Research on the measurement of job crafting indicates that crafting involves behaviors such as increasing social job resources and increasing challenging job demands (Tims, Bakker, & Derks, 2012). These behaviors should be particularly important for improving self-determined motivation and career attitudes because these dimensions contribute to fulfilling innate needs described by SDT. For

example, taking on and accomplishing challenging job demands should result in greater feelings of competence and autonomy satisfaction among workers.

Career counselors can also facilitate workers need fulfillment and self-determined motivation by encouraging clients to pursue flexible work programs, which provide employees with a high degree of autonomy over how, where, and when they perform their jobs (Kauffeld, Jonas & Frey, 2004). Sate for high work demands by giving workers enhanced autonomy, which resulted in greater employee learning and development. Flexible work programs should be particularly valuable to help employees fulfill needs for autonomy.

Conclusion

In sum, we linked the literatures on job design theory and career theory to demonstrate that SDT is a useful framework for predicting subjective career success in the form of career satisfaction, career commitment, and perceived P-V fit. Our model was fully supportive of all tested propositions and demonstrates that SDT has previously unexplored value for predicting career outcomes. Our findings have considerable practical importance as well; our results suggest that designing jobs in ways that satisfy innate psychological needs will boost work motivation and encourage workers to "stay the course" in their current careers.

References

- Armstrong-Stassen, M., & Ursel, N. D. (2009). Perceived organizational support, career satisfaction, and the retention of older workers. *Journal of Occupational and Organizational Psychology*, 82, 201-220.

- Baard, P. P., Deci, E. L., & Ryan, R. M. (2004). Intrinsic need satisfaction: A motivational basis of performance and well-being in two works in two work settings. *Journal of Applied Social Psychology*, 34, 204-2068.
- Berg, J. M., Wrzesniewski, A., & Dutton, J. E. (2010). Perceiving and responding to challenges in job crafting at different ranks: When proactivity requires adaptivity. *Journal of Organizational Behavior*, 31(2-3), 158-186.
- Blais, M. R., Lachance, L., Vallerand, R. J., Briere, N. M., & Riddle, A. S. (1993). The Blais inventory of work motivation [French]. *Revue Quebecoise de Psychologies*, 14, 185-215.
- Blau, G. (1985). The measurement and prediction of career commitment. *Journal of Occupational Psychology*, 58, 277-288.
- Chen, Y. (2011). Chinese knowledge employees' career value, perceived organizational support and career success. *IBusiness*, 3(3), 274-282.
- Colakoglu, S. N. (2011). The impact of career boundarylessness on subjective career success: The role of career competencies, career autonomy, and career insecurity. *Journal of Vocational Behavior*, 79(1), 47-59.
- Dahling, J. J., & Librizzi, U. A. (2015). Integrating the theory of work adjustment and attachment theory to predict job turnover intentions. *Journal of Career Development*, 42, 215-228.
- Dahling, J. J., & Thompson, M. N. (2013). Detrimental relations of maximization with academic and career attitudes. *Journal of Career Assessment*, 21, 278-294.
- Deci, E. L., & Ryan, R. M. (2012). Self-determination theory. In P. A. M. Van Lange, A. W. Kruglanski & E. T. Higgins

- (Eds.), *Handbook of theories of social psychology* (pp. 416-437). Thousand Oaks, CA: Sage.
- Deci, E. L., Rayan, R. M., Gagne, M., Leone, D. R., Usunov, J., & Kornazheva, B. P. (2001). Need satisfaction, motivation, and well-being in the work organizations of a former Eastern Bloc country: A cross-cultural study of self-determination. *Personality and Social Psychology Bulletin*, 27, 930-942.
- Deci, E., & Ryan, R. (2000). The what and why of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 4, 227-268.
- Deris, N., Pepermans, R., & Carlir, O. (2008). Career success: constructing a multi-dimensional model. *Journal of Vocational Behavior*, 73, 254-267.
- Dolan, S. L., Bejarano, A., & Tzafrir, S. (2011). Exploring the moderating effect of gender in the relationship between individual's aspirations and career success among engineers in Peru. *The International Journal of Human Research Management*, 22(15), 3146-3167.
- Donohue, R. (2007). Examining career persistence and career change intent using the career attitudes and strategies inventory. *Journal of Vocational Behavior*, 70, 259-276.
- Eddleston, K. A. (2009). The effects of social comparisons on managerial career satisfaction and turnover intentions. *Career Development International*, 14, 87-110.
- Fay, D., & Frese, M. (2000). Self-starting behavior at work: Toward a theory of personal initiative. In J. Heckhausen (Ed.), *Motivational Psychology of Human Development* (pp. 307-324). Amsterdam: Elsevier.
- Fernet, C., Austin, S., & Vallerand, R. J. (2012). The effects of work motivation on employee exhaustion and commitment: An extension of the JD-R model. *Work & Stress*, 26, 213-229.

- Fu, J. (2010). IS Information Technology career unique? Exploring differences in career commitment and its determinants among it and non-it employees. *International Journal of Electronic Business Management*, 8(3), 263-271.
- Gagne', M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26, 331-362.
- Gillet, N., Gagné, M., Sauvagère, S., & Fouquereau, E. (2013). The role of supervisor autonomy support, organizational support, and autonomous and controlled motivation in predicting employees' satisfaction and turnover intentions. *European Journal of Work and Organizational Psychology*, 22(4), 450-460.
- Grant, A. M., Fried, Y., Parker, S. K., & Frese, M. (2010). Putting job design in context: Introduction to the special issue. *Journal of Organizational Behavior*, 31, 145-157.
- Greenhaus, J. H., Parasuraman, S., & Wormley, W. (1990). Effects of race on organizational experiences, job performance evaluations, and career Outcomes. *Academy of Management Journal*, 33, 64-86
- Greguras, G. J., & Diefendorff, J. M. (2009). Different fits satisfy different needs: Linking person-environment fit to employee commitment and performance using self-determination theory. *Journal of Applied Psychology*, 94, 465-477.
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16, 250-279.
- Hall, D. T. (1996). Protean careers of the 21st century. *The Academy of Management Executive*, 10, 8-16.

- Hall, D. T., & Las Heras, M. (2010). Reintegrating job design and career theory: Creating not just good jobs, but smart jobs. *Journal of Organizational Behavior*, 31, 448–462.
- Judge, T. A., Cable, D. M., Boudreau, J. W., & Bretz, R. D. (1995). An empirical investigation of the predictors of executive career success. *Personnel Psychology*, 48, 485-519.
- Judge, T. A., Higgins, C. A., Thoresen, C. J., & Barrick, M. R. (1999). The big five personality traits, general mental ability, and career success across the lifespan. *Personnel Psychology*, 52, 621-652.
- Karavardar, G. (2014). Career commitment, subjective career success and career satisfaction in the context of hazelnut processing industry in Turkey. *International Journal of Business and Management*, 9(6), 98-105.
- Kauffeld, S., Jonas, E., & Frey, D. (2004). Effects of a flexible work-time design on employees and company-related aims. *European Journal of Work and Organizational Psychology*, 13(1), 79-100.
- Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). New York, NY: GuilfordPress.
- Kong, H., Cheung, C., & Song, H. (2012). From hotel career management to employees' career satisfaction: the mediating effect of career competency. *International Journal of Hospitality Management*, 31(3), 76-85.
- Lam, C. F., & Gurland, S. T. (2008). Self-determined work motivation predicts job outcomes, but what predicts self-determined work motivation? *Journal of Research in Personality*, 42(4), 1109-1115.
- Latham, G. P. (2013). *Work Motivation: History, Research, and Practice* (2nd Ed.). Thousand Oaks, CA: Sage.

- Littler, C. R., Wiesner, r., & Dunford, R. (2003). The dynamics of delaying: Changing management structures in three countries. *Journal of Management Studies*, 40(2), 225-256.
- McArdle, S., Waters, L., Briscoe, J. P., & Hall, D. T. (2007). Employability during unemployment: Adaptability, career identity, and human and social capital. *Journal of Vocational Behavior*, 71(2), 247-264.
- Meyer, J. P., & Gagne, M. (2008). Employee engagement from a self-determination theory perspective. *Industrial and Organizational Psychology*, 1, 60-62.
- Meyer, J. P., & Maltin, E. R. (2010). Employee commitment and well-being: A critical review, theoretical framework and research agenda. *Journal of Vocational Behavior*, 77, 323-337.
- Nahrgang, J. D., Morgeson, F. P., & Hofmann, D. A. (2011). Safety at work: A meta-analytical investigation of the link between job demands, job resources, burnout, engagement, and safety outcomes. *Journal of Applied Psychology*, 96, 71-94.
- Nauta, A., Van Vianen, A., Van Der Heijden, B., Van Dam, K., & Willemsen, M. (2009). Understanding the factors that promote employability orientation: The impact of employability culture, career satisfaction, and role breadth self-efficacy. *Journal of Occupational and Organizational Psychology*, 82, 233-251.
- Ng, T. W. H., & Feldman, D. C. (2014). The moderating effects of age in the relationships of job autonomy to work outcomes. *Work, Aging and Retirement*, 1-15.
- Ng, T. W. H., Eby, L. T., Sorensen, K. L., & Feldman, D. C. (2005). Predictors of objective and subjective career success: A meta-analysis. *Personnel Psychology*, 58(2), 367-408.

- Parker, S. K. (2014). Beyond motivation: Job and work for development, health, ambidexterity, and more. *Annual Review of Psychology*, 65, 661-691.
- Rasdi, R. M., Ismail, M., & Garavan, T. N. (2011). Predicting Malaysian managers' objective and subjective career success. *The International Journal of Human Resource Management*, 22(17), 3528-3549.
- Rayan, R. M., & Connell, J. P. (1989). Perceived locus of causality and internalization: Examining reasons for acting in two domains. *Journal of Personality and Social Psychology*, 57, 749-761.
- Rayan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25, 54-67.
- Seibert, S. E., & Kraimer, M. L., & Crant, J. M. (2001). What do proactive people do? A longitudinal model linking proactive personality and success. *Personal Psychology*, 54, 845-874.
- Seibert, S. E., Crant, J. M., & Kraimer, M. L. (1999). Proactive personality and career success. *Journal of Applied Psychology*, 84, 416-427.
- Sheldon, K. M., Turban, D. B., Brown, K. G., Barrick, M. R., & Judge, T. A. (2003). Applying self-determination theory to organizational research. *Research and Human Resources Management*, 22, 357-393.
- Sheldon, K. M., Turban, D. B., Brown, K. G., Barrick, M. R., & Judge, T. A. (2003). Applying Self-Determination Theory to Organizational Research, in (ed.), *Research in personnel and human resources management* (pp.357-393). Emerald Group Publishing Limited.
- Simon, M., Müller, B. H., & Hasselhorn, H. M. (2010). Leaving the organization or the profession-A multilevel analysis of

- nurses' intentions. *Journal of Advanced Nursing*, 66, 616-626.
- Sturges, J. (2002). What it means to succeed: personal conceptions of career success held by male and female managers at different ages. *British Journal of Management*, 10(3), 239-252.
- Sullivan, S. E., & Baruch, Y. (2009). Advances in career theory and research: A critical review and agenda for future exploration. *Journal of Management*, 35, 1542-1571.
- Tims, M., Bakker, A. B., & Derks D. (2012). Development and validation of the job crafting scale. *Journal of Vocational Behavior*, 80, 173-186.
- Tremblay, M. A., Blanchard, C. M., Taylor, S., Pelletier, L. G., & Villeneuve, M. (2009). Work extrinsic and intrinsic motivation scale: Its value for organizational psychology research. *Canadian Journal of Behavioral Science*, 41, 213-226.
- Vallerand, R. J. (1997). Toward a hierarchical model of intrinsic and extrinsic motivation. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (pp. 271-360). Waltham, MA: Academic Press.
- Vansteenkiste, M., & Ryan, R. M. (2013). On psychological growth and vulnerability: Basic psychological need satisfaction and need frustration as a unifying principle. *Journal of Psychotherapy Integration*, 23, 263-280.
- Vogel, R. M., & Feldman, D. C. (2009). Integrating the levels of person-environment fit: The roles of vocational fit and group fit. *Journal of Vocational Behavior*, 75, 68-81.
- Williams, G. C., & Deci, E. L. (1996). Internalization of biopsychosocial values by medical student: A test of self-

determination theory. *Journal of Personality and Social Psychology*, 70, 767-779.

Williams, G. C., Freedman, Z. R., & Deci, E. L. (1998). Supporting autonomy to motivate glucose control in patients with diabetes. *Diabetes Care*, 21, 1644-1651.

Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review*, 26, 179-201.